

Post Ion Implanted Photoresist Stripping Using Supercritical Carbon Dioxide

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High dose ion implanted photoresist(HDIPR) was stripped off from the surface of semiconductor wafers using supercritical carbon dioxide(SCCO₂) and additives Fluorinated surfactants and alcohols were added to enhance the solvation effect. We investigated different surfactant concentrations, stripping temperatures and pressure, and magnetic stirring and their impact on the process efficiency. The wafer surface was analyzed before and after stripping by scanning microscopy and by energy dispersive X-ray spectrometer. The result indicates that HDIPR could be stripped completely in 30 min using a Surfactant+co solvent mixture at 20Mpa and 343K.